

## AICTE-IKGPTU Sponsored 1-Week FDP on

### MODERN TOOLS AND TECHNIQUES FOR TEACHERS AND RESEARCHERS

(Nov 18-22, 2019)



**IK Gujral Punjab Technical University**  
Main Campus, Kapurthala-144603 (Punjab)

#### Chief Patron

Professor Ajay Kumar Sharma,  
Vice-Chancellor, IKGPTU Kapurthala

#### Mentor

Professor Yadwinder Singh Brar,  
Director, IKGPTU Main Campus

#### Programme Coordinator

Dr Satvir Singh, Associate Professor & Head ECE  
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#### IKGPTU MAIN CAMPUS KAPURTHALA

It was established as Punjab Technical University in 1997. Subsequently, in 2015 this university is renamed as I.K. Gujral Punjab Technical University by State Government in the honor to Late Sh. Inder Kumar Gujral, Former Prime Minister of India.

University started B.Tech. degree programmes in 2016: Electronics & Comm. Engineering, Computer Science & Engineering, Software Engineering, Computer Engineering, Electrical Engineering, Civil Engineering, and Mechanical Engineering.

The Key features about IKGPTU includes:

- Ranked 96<sup>th</sup> in 2019 NIRF India Ranking
- Highly experience faculty with Ph.D. degrees
- 3<sup>rd</sup> in Punjab after IIT Roopnagar & TIET Patiala
- 121 AICTE and 65 UGC affiliated colleges
- Scholarships for meritorious students and Freeship Schemes for needy students studying in the university campuses.
- Student centric vibrant environment and state-of-the-art infrastructure spread over 78acres of land
- Internet connectivity, Bank, Post Office, Canteen, Milk booth, Hostels & Transportation Facilities

#### OBJECTIVES AND SCOPE

No doubt the knowledge of the teacher is important, but students have access to unlimited knowledge on internet around the clock. Now it's a challenge for teachers, how to teach, guide and supervise the learning of the student in present scenario. This FDP will impart the knowledge of modern IT tools that are useful in online/offline student learning, their constant supervision and assessment.

This Faculty Development Programme is diligently planned around learning modern software-based tools and techniques that are useful in data visualization, writing research paper and preparation of reports and thesis, etc.

Some inevitable tools required to conduct research & teach effectively includes LaTeX, Video Lecture Recording, MOOCs, Google Classroom, Python, MATLAB and some interdisciplinary useful topics from Artificial Intelligence.

#### COURSE CONTENTS

Followings are some of the key issues to be discussed by the various experts:

- LaTeX type-setting tool for creating quality documents and reports
- Programming and data visualization using high level language (MATLAB)
- Role of Artificial Intelligence in improving research outcomes

- Video Lecture Recording demonstration and hands on practice
- Development of e-contents (Text & Videos) for online student learning
- Teaching and supervising online student learning through Google Classroom, MOOCs, SWAYAM platforms, etc.

#### WHO CAN ATTEND?

Teachers and researchers from Engineering and Sciences institutes or universities who want to adapt to changing educational and research scenarios.

#### IMPORTANT INSTRUCTIONS

- Seats are limited. Participants will be registered & confirmed on first-come first-serve basis.
- Teachers and Researchers can apply online at <http://data.ptu.ac.in/fdpRegn.php> and take print of Application.
- Printed Application Form duly signed by the Head of the Institute/Department should reach in the Department of ECE, IKGPTU Main Campus, Kapurthala before **04.11.2019**.
- No TA/DA will be given to any participant. However, free boarding and lodging will be provided in Hostels on demand.

#### APPLICATION ONLINE

Candidates are required to register themselves online at <http://data.ptu.ac.in/fdpRegn.php>. Printed Application Form duly signed by the Head of Department/Institute must reach before **04.11.2019** at following address

#### Dr Satvir Singh, Associate Professor

Department of Electronics & Comm. Engineering  
I K Gujral Punjab Technical University,  
Main Campus, Kapurthala-Jalandhar Highway  
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MODERN TOOLS AND TECHNIQUES FOR TEACHERS AND RESEARCHERS**

**TENTATIVE PLAN**

<b>Dates</b>	<b>10:00am to 11:30am</b>	<b>30min</b>	<b>12.00pm to 01.30pm</b>	<b>60min</b>	<b>02:30pm to 04.00pm</b>	<b>30min</b>
18.11.2019 Monday (Day 1)	Registration and Inauguration	High Tea	Session 1 <b>Role of Artificial Intelligence in Research</b>	L	Session 2 <b>Fuzzy Logic Systems and Evolutionary Algorithms</b>	Tea
19.11.2019 Tuesday (Day 2)	Session 3 <b>LaTeX Installation &amp; General Overview</b>	Tea	Session 4 <b>Research Paper Writing using LaTeX</b>	U	Session 5 <b>Practice Session on LaTeX Tool</b>	Tea
20.11.2019 Wednesday (Day 3)	Session 6 <b>Creating E-Contents: Text &amp; Video Lectures</b>	Tea	Session 7 <b>Video Lecture Recording Studio: Familiarization</b>	N	Session 8 <b>Video Lecture Recording: Demonstration</b>	Tea
21.11.2019 Thursday (Day 4)	Session 9 <b>Student-Teacher Interaction through Google Classroom</b>	Tea	Session 10 <b>Self-Learning through Swayam Platform</b>	C	Session 11 <b>Video Lecture Recording: Practice</b>	Tea
22.11.2019 Friday (Day 5)	Session 12 <b>Swayam Portal for Students &amp; Teachers</b>	Tea	Session 13 <b>Programing and Data Visualizing in MATLAB</b>	H	Session 14 <b>MATLAB Practice Session</b>	Valediction